

Date: Wednesday, 13/08/2008 12:40:12 PM  
 User: Julie Lecocq

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: GLARESHIELD
Job Number	: 41222		
Estimate Number	: 13288		
P.O. Number	:	Part Number	: D36901
This Issue	: 13/08/2008 S.O. No. :	Drawing Number	: D3690 REVB
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 13/08/2008 Type : THERMOFORMING	Drawing Revision	: B
Previous Run	: 40664	Material	:
Written By	:	Due Date	: 29/08/2008 Qty: 4 Um: Each
Checked & Approved By	: <u>JUD 08.8.13</u>		
Comment	: Est Rev A New Issue 08/04/28 DL verified by:DD Est Rev:B 08-07-14 revB as per dwg DD verified by:ec		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	MLEXS093F600602	GE PLASTICS LEXAN SHEET
-----	-----------------	-------------------------



Comment: Qty.: 26.3110 sf(s)/Unit Total : 105.2440 sf(s)

GE PLASTICS LEXAN SHEET

batch: M106751

2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
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Comment: HAND FINISHING THERMOFORMING

Set up machine frame and program as per Folio FTA 019

JL 08.08.13

3.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
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Comment: HAND FINISHING THERMOFORMING

1) Cut Blanks to fit frame size 69.5" X 35.5"

BB 08/08/19

4.0	THERMOFORMING	THERMOFORMING MACHINE
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Comment: THERMOFORMING MACHINE

Thermoform as per Dwg. D3690-1and Folio FTA 019

Dwg. Rev. BFolio Rev. ABB 08/08/19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 13/08/2008 12:40:12 PM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: GLARESHIELD

Job Number: 41222

Part Number: D36901

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



PTO

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Visually inspect for proper formation of each part

BB 08/08/21

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

08-08-26 (4)

7.0

HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

1) Trim to Finished Dimensions as per dwg D3690 using DT9036 template

DT9043

BB 08/08/21 xy

8.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

08-08-26 (4)

Check dimensions to ensure conformity to drawing tolerances.

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08-08-26 (4)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

GA

FF

08/08-28 (4)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/08/29

Job Completion

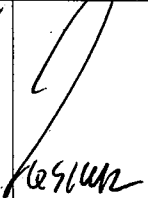
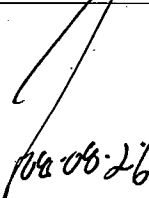
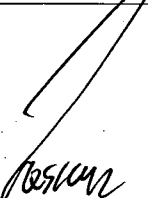
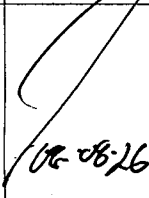


W 08/08/28

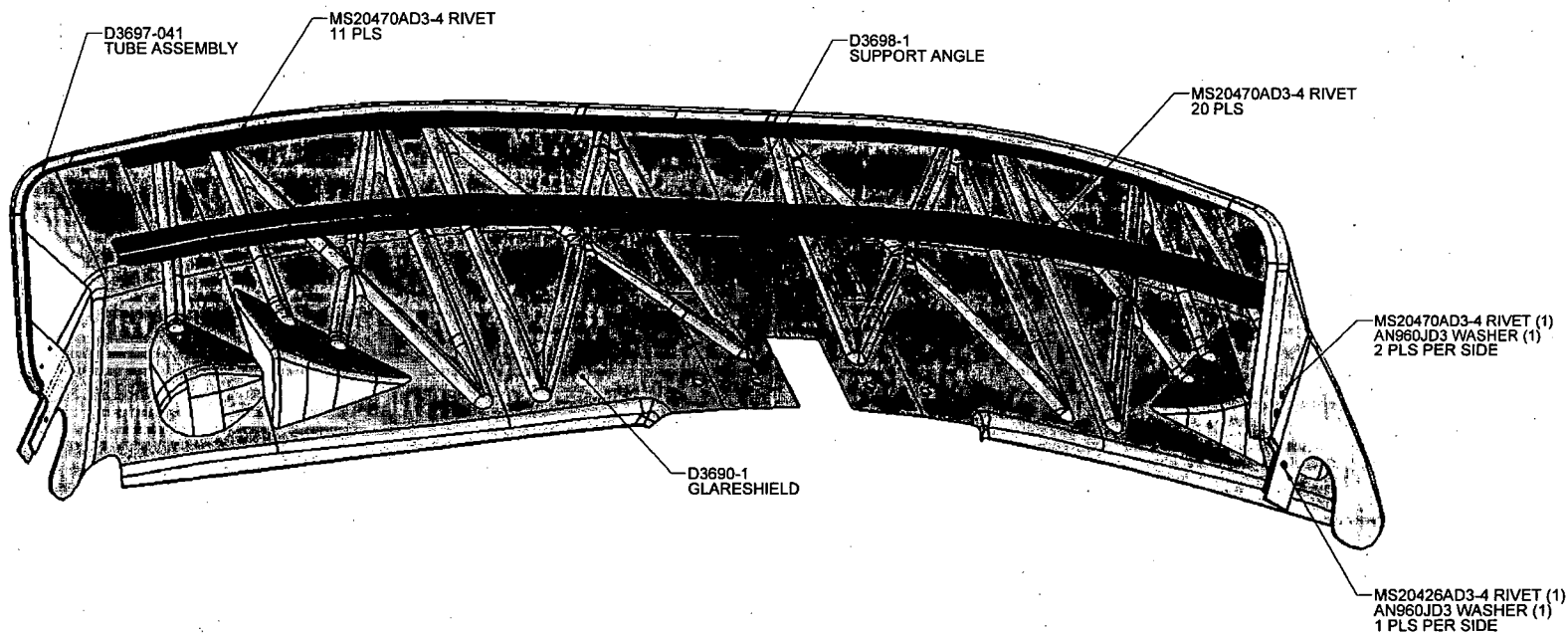
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
88.08.19	5	UNIT DID NOT FORM POOR SEAL AT EDGE. X 2 units		Scrap & Replace 2 units. M106751 X 2	BB 09/09/19	 08-06-26		 08-06-26

NOTE: Date & initial all entries



# PART LIST

QTY -041	PART NUMBER	DESCRIPTION
X	D3690-041	GLARESHIELD ASSEMBLY
1	D3690-1	GLARESHIELD
1	D3697-041	TUBE ASSEMBLY
1	D3698-1	SUPPORT ANGLE
6	AN980JD3	WASHER (OR NAS1149DN332J)
2	MS20426AD3-4	RIVET
35	MS20470AD3-4	RIVET

## D3690-041 GLARESHIELD ASSEMBLY

RELEASED  
08-07-05

B	ADD FINISH COAT & 1.0 TYP. SHEET 2 ZONES A,8 & C,5; ADD MIN THICKNESS. SHEET 3 ZONE A,8	RF	08.06.24
A	NEW ISSUE	RF	08.05.26
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	08.06.24		

DART AEROSPACE LTD  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. REV. B  
D3690 SHEET 1 OF 3  
TITLE SCALE  
GLARESHIELD ASSEMBLY NTS

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WORK ORDER  
RETURN TO  
ENGINEERING  
SHOP COPY

TRANSFER DRILL  $\phi 0.098$   
(#40 DRILL) FROM  
D3698-1 TO D3690-1  
INSTALL  
MS20470AD3-4 RIVET (20, REF)  
RIVET HEAD ON GLARESHIELD  
OUTSIDE SURFACE

D3690-1  
GLARESHIELD  
REF

TRANSFER DRILL:  $\phi 0.098$   
(#40 DRILL) FROM:  
D3697-041 TO D3690-1  
INSTALL  
MS20426AD3-4 RIVET (1, REF)  
AN960JD3 WASHER (1, ON GLARESHIELD  
OUTSIDE SURFACE)  
1 PER SIDE

TRANSFER DRILL  $\phi 0.098$   
(#40 DRILL) FROM  
D3697-041 TO D3690-1  
INSTALL  
MS20470AD3-4 RIVET (1, REF)  
AN960JD3 WASHER (1, ON GLARESHIELD  
OUTSIDE SURFACE)  
2 PER SIDE

D3697-041  
TUBE ASSEMBLY  
REF

TRANSFER DRILL  $\phi 0.144$   
(#27 DRILL) AT THIS LOCATION  
FROM D3697-041 TO D3690-1  
(NO HARDWARE INSTALLED)

D3698-1  
SUPPORT ANGLE  
REF

# SECTION A-A

EQUAL DIMENSION  
AT BOTH ENDS

TRANSFER DRILL  $\phi 0.098$   
(#40 DRILL) FROM  
D3697-041 TO D3690-1  
INSTALL  
MS20470AD3-4 RIVET (11, REF)  
RIVET HEAD ON GLARESHIELD  
OUTSIDE SURFACE

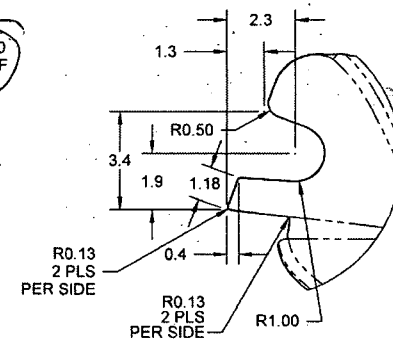
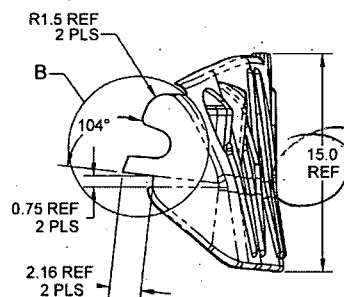
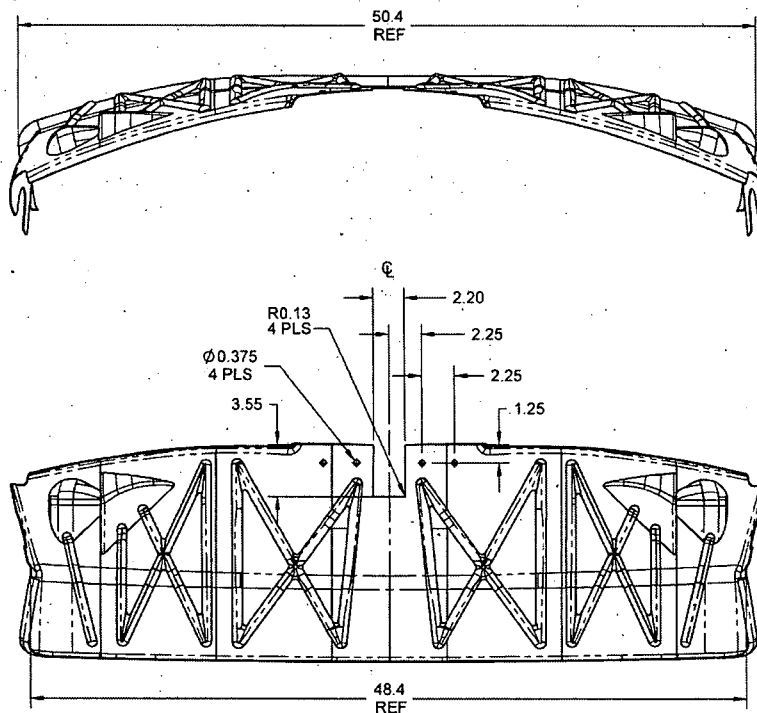
## D3690-041 GLARESHIELD ASSEMBLY

RELEASED  
08-07-05

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- NOTES:
- 1) CENTER D3697-041 AND D3698-1 ON TO D3690-1
  - 2) FINISH: PAINT D3690-041 ASSY FLAT BLACK USING BASF GLASURIT 22 LINE CODE SFA39.50 PER DART QSI 005 4.2
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) IDENTIFICATION: ETCH WITH DART P/N D3690-041 & B/N ON INSIDE OF PART
  - 5) WEIGHT: 2.98 lbs
  - 6) MASK HATCHED AREAS (6 PLS) ON INSIDE OF THE PART PRIOR TO PAINTING

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	4	DRAWING NO.	REV. B
MFG. APPR.	5	D3690	SHEET 2 OF 3
APPROVED	14	TITLE	SCALE
DE APPR.	14	GLARESHIELD ASSEMBLY	NTS
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DETAIL B  
2 X SCALE  
ALL REF DIMENSION





RELEASED  
08-09-2008

# D3690-1 GLARESHIELD

NO. 111111  
WORK ORDER  
WITHOUT NOTICE  
SUBJECT TO AMENDMENT  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
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- 1) MATERIAL: F6006 SUEDE/POLISHED 701 BLACK FLAT LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXS.093-F6006-02)
- 2) TOOLING: THERMOFORM PER MOLD DT9010 PER QSI 022 TRIM PER MOLD SCRIBE LINES EXCEPT WHERE NOTED
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 2.5 lbs
- 9) MINIMUM THICKNESS AFTER FORMING IS 0.040



DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RE	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3690	SHEET 3 of 3
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DART AEROSPACE LTD	Work Order: 41222
Description:	Part Number: D3690-1
Inspection Dwg: D 3690 Rev: B.	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

#1

### THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u>				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: BB

Date: 08/08/21

### TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
15.0	+/- .100"	15.1	✓			
2.20	+/- .030"	2.22	✓			
.040	M.in.	.065	✓			

Measured by: BB

Date: 08/08/21

Audited by: [Signature]

Date: 08-08-21

Prototype Approval: [Signature]

Date: 08-08-21

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	<u>[Signature]</u>



DART AEROSPACE LTD		Work Order: 41222
Description:		Part Number: D3690-1
Inspection Dwg:	Rev:	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

#2

### THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than				N/A
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: BB

Date: 08/08/21

### TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
15.0	±.100"	15.1	✓			
2.20	±.030"	2.18	✓			
.040	Min	.052	✓			

Measured by: BB

Date: 08/08/21

Audited by: 080826

Date:

Prototype Approval:

Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	



DART AEROSPACE LTD		Work Order: 41222
Description:		Part Number: D3690-T
Inspection Dwg: D3690	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

#3

### THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <i>N/A</i>				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: \_\_\_\_\_

Date: \_\_\_\_\_

### TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
15.0	$\pm .100$	15.0	✓			
2.20	$\pm .030$	2.16	✓			
.040	Min	.055	✓			

Measured by: *BB*

Date: 08/08/21

Audited by: *[Signature]*

Date: 080821

Prototype Approval: \_\_\_\_\_

Date: \_\_\_\_\_

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	<i>[Signature]</i>

